

REMARKS

The Applicants note that the Office Action Summary does not indicate whether a certified copy of the foreign priority document has been received. Acknowledgment is respectfully requested.

A Supplemental Information Disclosure Statement is enclosed for filing in the application.

The drawings are amended above to correct informalities in FIG. 2.

Claims 1-6, 8-14, 16-22, 24-34, 36-42, 45 and 46 are rejected under 35 U.S.C. § 102(e) as being anticipated by Tokunaga (U.S. Publication Number 2003/0031537, now U.S. Patent Number 6,817,822 - hereinafter Tokunaga '537). Claims 7, 15, 23, 35, 43, 44, 47 and 48 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Tokunaga '537 in view of Tokunaga (U.S. Publication Number 2003/0009904 - hereinafter Tokunaga '904). In view of the amendments to the claims and the following remarks, the rejections are respectfully traversed, and reconsideration of the rejections is requested.

In the present invention as claimed in claims 1-48 an apparatus for processing a wafer and a method thereof include a flow chamber that has a first gas inlet for allowing a gas to flow in the flow chamber. The first gas has a substantially laminar flow in the flow chamber. A second gas inlet allows a second gas to enter the flow chamber. The second gas combines with the first gas without interfering with the substantially laminar flow of the first gas. By maintaining the laminar flow of the first gas, it is possible to prevent the wafer and the inside environment of the apparatus from being contaminated (see the Specification as filed at page 8, line 25 through page 9, line 1).

The claims are amended to clarify certain features of the invention. Specifically, the claims are amended to set forth that the substantially laminar flow of the first gas is maintained when the second gas is introduced into the chamber. It is believed that this feature, now set forth in the amended claims, is neither taught nor suggested by the cited references, taken alone or in combination.

Tokunaga '537 discloses a load port, wafer processing apparatus, and method of replacing atmosphere in which a mini-environment is created with an upper wall surface 45, a lower wall surface 46 and an EFEM (equipment front end module) door 43. An FFU (fan filter unit) 42 cleans the air in the environment 40 and introduces a flow of air into the environment 40 with a laminar flow. The gas supply port 47 supplies an inert gas or dry air into the mini-environment. The laminar flow from the FFU 42 is interfered with in the vicinity of an open face 101 by the upper wall surface 45 (see Tokunaga '537, column 4, lines 50-60 and column 5, line 63 through column 6, line 17).

Hence, Tokunaga '537 fails to teach or suggest that a second gas combines with a first gas without interfering with a laminar flow of the first gas in a flow chamber. Instead, in Tokunaga '537, the mini-environment created for the gas supply port 47 interferes with the laminar flow from the FFU 42.

Tokunaga '537 fails to teach or suggest certain elements of the invention set forth in the claims. Specifically, Tokunaga '537 fails to teach or suggest that a second gas combines with a first gas without interfering with a laminar flow of the first gas in a flow chamber. Therefore, it is believed that the claims are allowable over the cited reference, and reconsideration of the rejections of claims 1-6, 8-14, 16-22, 24-34, 36-42, 45 and 46 under U.S.C. 102(e) as being anticipated by Tokunaga '537 is respectfully requested.

Tokunaga '904 discloses a wafer carrier 200 having two gas inlets 3 installed apart from each other in the vicinity of a carrier door 20. Tokunaga '904 fails to teach or suggest that a second gas combines with a first gas without interfering with a substantially laminar flow of the first gas in a flow chamber.

Hence, neither of Tokunaga '537 and Tokunaga '904 teaches or suggests certain elements of the present invention set forth in amended claims 1-48. Specifically, neither of the references teaches or suggests a second gas combining with a first gas without interfering with a substantially laminar flow of the first gas in a flow chamber, as claimed in amended claims 1-48. Accordingly, there is no combination of the references which would provide such teaching or suggestion.


Application Number 10/619,112
Amendment dated August 5, 2005
Reply to Office Action of May 6, 2005

Neither of the references, taken alone or in combination, teaches or suggests the invention set forth in the amended claims. Therefore, it is believed that the amended claims are allowable over the cited references, and reconsideration of the rejections of claims 7, 15, 23, 35, 43, 44, 47 and 48 under 35 U.S.C. 103(a) based on Tokunaga '537 and Tokunaga '904 is respectfully requested.

In view of the amendments to the claims and the foregoing remarks, it is believed that all claims pending in the application are in condition for allowance, and such allowance is respectfully solicited. If a telephone conference will expedite prosecution of the application, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

Date: 8/5/05
Mills & Onello, LLP
Eleven Beacon Street, Suite 605
Boston, MA 02108
Telephone: (617) 994-4900
Facsimile: (617) 742-7774
J:\SAM\0396\amenda\amendment2.wpd


Steven M. Mills
Registration Number 36,610
Attorney for Applicants

Application Number 10/619,112
Amendment dated August 5, 2005
Reply to Office Action of May 6, 2005

Amendments to the Drawings:

The attached sheet of drawings includes changes to FIG. 2. This sheet, which includes FIG. 2, replaces the original sheet. In FIG. 2, reference numeral 44 designating a filter is added.

A marked-up version of the drawings, with revisions shown in red, is included with the amended drawings. Entry of the amended drawings is respectfully requested.

Attachment: Replacement Sheet
Annotated Sheet Showing Changes

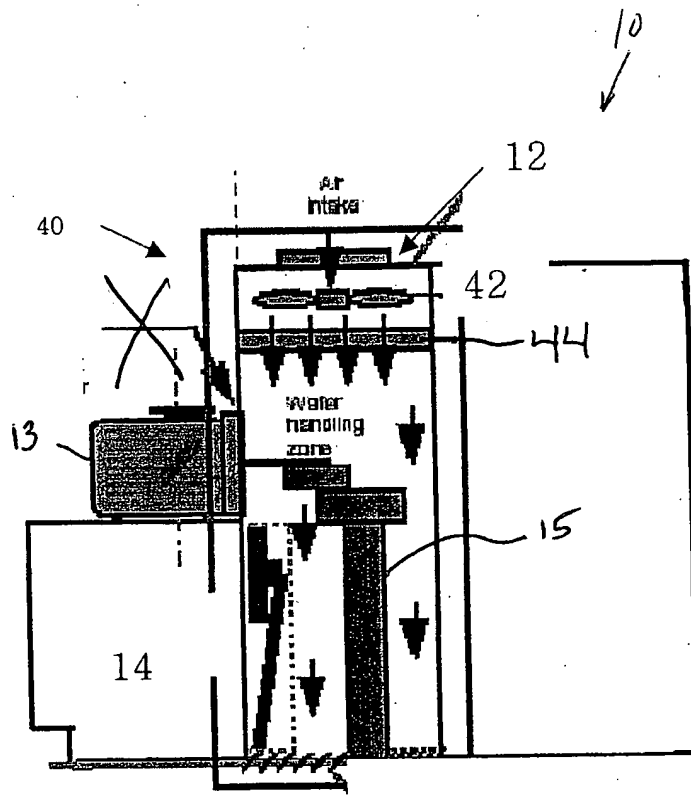


FIG. 2